ASBESTOS

Vol. 2 JANUARY, 1921 No. 7

FURNISHING A COMMON VANTAGE GROUND WHERE THOSE INTERESTED IN ASBESTOS AND MAGNESIA MAY MEET FOR DISCUSSION

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Devoted to the Interests of the Asbestos and Magnesia Industries

Secretarial Service - - *Publisher*
C. J. Stover - - - *Editor*

Publishing Office
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Vol. 2 **JANUARY 1921** **No. 5**

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Illustrating paper mill equipment, consisting of wet end, dryers, calenders and finishing end. *(See page 8).*

Asbestos Paper

Its Manufacture and Uses

W. L. STEFFENS.

"What is Asbestos Paper made of?" That question may seem to be uncalled for in view of the descriptive name, Asbestos Paper, yet it is a question constantly being asked of manufacturers. Those not familiar with this industry seem to think that there are other ingredients used in rather large proportion, and generally express considerable surprise when told that commercial Asbestos Paper is composed of from 90% to 95% of Asbestos Fibre.

Determining the Grade of Fibre

The kind and grade of fibre used may be of interest. Asbestos is graded according to average length of fibre, the determination being made on a standard testing machine consisting of several trays with wire screen bottoms of various size mesh. A sample is placed in the top tray and after a given period of vibration under standard conditions, the quantities remaining in the various trays are weighed. The supposition is that the longer fibres will remain on the top trays, and for all practical purposes this method of grading is quite satisfactory. The grade of fibre used in making Asbestos Paper is generally termed "paper stock" which tests 10 oz. on the first three trays and 6 oz. in the bottom box. A careful examination shows that this "paper stock" varies in length from particles too short to measure, up to fibres as long as one-half inch. The average length is approximately one-fourth inch.

This grade of fibre makes a very satisfactory paper for general uses such as for making Asbestos Pipe Coverings, for covering warm air furnace pipes, for use as building paper, etc. Shorter grades have been used, but with questionable results, because the paper becomes so weak that a large amount of breakage occurs. Special papers embodying much longer grades are also made for special purposes, such as for engine gasket stock, for fine ribbon used for electrical insulation purposes, etc. In the early days of the industry, when Asbestos was first exploited for commercial purposes the first conception of its practical application was in the form of a fireproof paper. Only the

long fibres were then used; fibres corresponding to our present crude and spinning fibres which now have market values ranging from $1200.00 to $3000.00 per ton. The discovery of the possibility of spinning and weaving Asbestos caused shorter fibres to be used in paper making.

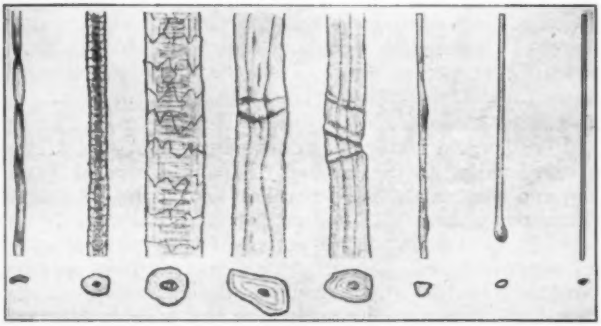
The demand for Asbestos textiles grew faster than the production of the long fibres with the result that greater refinements in spinning were adopted to make use of still shorter grades of fibre, and because of the higher prices obtained for such long grades, paper makers were continually forced to adopt shorter fibres in their processes. The question of what length of fibre should be used in making Asbestos Paper is somewhat parallel to the question asked of Lincoln "How long should a man's legs be?" and his answer "Long enough to reach from his body to the ground,"— has its parallel answer, in that Asbestos Fibres for Asbestos Paper should be long enough so that the paper can be handled without undue breakage. In the case of other papers, certain standards of strength have been set up, but in the case of Asbestos Paper there are, in general, no definitely specified requirements. In any event, the Asbestos Paper manufacturers of this country today use substantially one grade of fibre, as previously described under the name "paper stock". Even more uniformity in the matter of tensile strength is desirable and it is to be hoped that at no very distant date standards will be set that will be of benefit to users and manufacturers alike.

Practically all the Asbestos Fibre used in paper making comes from the Canadian deposits in the Province of Quebec, Canada. This fibre seems to be the toughest and strongest of all available deposits. There are some minor deposits of Asbestos in the United States, but this fibre is weak and brittle and not desirable for paper making.

Why A Binder is Required.

It has been previously stated that Asbestos Paper consists of from 90% to 95% of Asbestos Fibre. This statement applies specifically to the commercial grade of Asbestos Paper which is purchased through any handler of Asbestos goods or mill supply house. The other 5% to 10% consists of binding or hardening materials. A binding material is always required in order to give tensile strength to Asbestos Paper because of the peculiar structure of As-

bestos Fibre. The sketch herewith reproduced from the periodical "Asbestos" (England) published by Turner Brothers Asbestos Company Limited, Rochdale, England, very strikingly illustrates why such fibres as cotton, wool,



1 2 3 4 5 6 7 8

Photo by courtesy of Turner Bros. Asbestos Co., Rochdale, England.
Various Fibres Magnified to show the difference in Construction

1—American Cotton
2—Leicester Wool
3—Dog Hair
4—Jute
5—Flax
6—Silk
7—Slag Wool
8—Asbestos

hair, jute, etc. will interlace and adhere because of their rough or scaley nature. Fibres of such nature would need little or no binder. Note however, that the individual Asbestos Fibre No. 8 is a perfectly smooth fibre without scales or roughness of any kind. As a result, Asbestos Fibres, particularly the short grades used in paper making, will not of themselves mat into a strong self binding sheet but require some additional binding material. Some of the binders used in paper making are starch, flour, specially prepared cold water paste binders or similar organic compositions. Lime is also used both as a binder and a hardener. In addition to the binding effect of these materials additional binder is obtained from the silicate of soda contained in scrap Asbestos, a percentage of which is generally used in conjunction with the fresh Asbestos Fibre. Nearly all Asbestos Paper mills operate manufacturing departments for articles made of Asbestos paper and in these de-

partments silicate of soda is the adhesive commonly used. The scrap from these departments is again converted into Asbestos Paper and carries with it a small percentage of silicate of soda binder. Anyone who has watched the behavior of Asbestos Paper under an intense heat for a fair length of time or under a moderate heat of say about 400 degrees F. over a long period of time will note that the Asbestos Paper turns brown. It is the small percentage of binding materials used that causes this discoloration.

Method of Manufacture

The general method of manufacture of Asbestos Paper is very similar to the method of manufacture of heavier chip and box boards. The "furnish," consisting of Asbestos Fibre, scrap Asbestos, binding material and water, is agitated in a "beater" for a period of time until the fibres are separated and a smooth consistent pulp is obtained; from the "beater" the material is discharged into a "stuff chest" of large capacity, in which the pulp is constantly agitated so that as new "beater" lots are fed into it a uniform mixture is made and any small variation in individual "beater" lots prevented from appearing in the finished paper; from these "stuff chests" the pulp is pumped into regulating boxes which control the quantity fed to the paper machine; from the regulating box the pulp goes to the "flow box" where additional water and the overflow from the "wet end" is added to bring the pulp to proper consistency for feeding into the "wet end." This "flow box" also serves the purpose of settling out the sand and hard particles regularly found in commercial Asbestos. Fibre as it comes from the Mines. The pulp then proceeds to the "wet end" where it is deposited on revolving, screen covered cylinders and in turn transferred from these cylinders to a continuous woolen felt. The number of cylinders used, together with the speed of the machine and consistency of the Asbestos pulp, determine the thickness of the final sheet. A second woolen felt is fed over the first felt so that the pulp lies between them much in the nature of the ham in a sandwich and the surplus water is then squeezed out of the pulp by means of heavy press rolls which also mat the fibres together so that at the end of this "wet end" a wet continuous sheet of Asbestos Paper is taken off and led over a long "bank" of steam heated cylin-

HIGH GRADE ASBESTOS TEXTILES

Asbestos Fibre Spinning Company

North Wales, Penna.

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HIGH GRADE ASBESTOS TEXTILES

Asbestos Fibre Spinning Company

North Wales, Penna.

drical dryers. The moisture is gradually driven out of the wet paper by these dryers until at the end of them the dry sheet of Asbestos Paper is obtained.

This sheet, usually 74 inches wide, is wound up on storage rolls. From these large rolls the sheet is led through slitters which cut it into 36 inch widths and then to the rewinders where it is wound up into rolls of approximately 100 pounds each. These rolls are then taken off, wrapped and headed and are ready for the market.

Uses

Probably the largest proportion of Asbestos Paper is used for wrapping hot air furnace pipes and risers and for making Asbestos Air Cell and various other kinds of Asbestos steam pipe and boiler coverings. In this respect it plays a wonderful part in the conservation of our fuel as well as affording fireproofing which could hardly be ob-

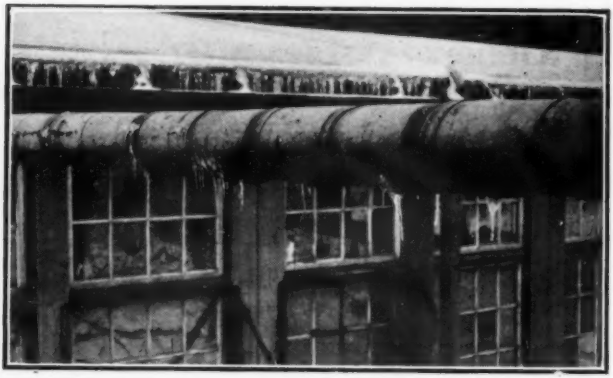

Photo by courtesy of Shartle Continuous Beater Co., Middletown, O.
Eight Ply Air Cell Covering (in two layers—each Four Ply) applied to steam pipe exposed to weather. Steam Pressure—Five Pounds.

tained with any other type of material. A big percentage of Asbestos Paper is used in making insulating blocks and sheets for insulating ovens of domestic ranges, oil and gas stoves of all kinds, enameling ovens, dry kilns and all forms of oven-like equipment where heat is to be conserved. During the past few years a new and interesting use has

Asbestos Fibres

SPINNING FIBRES, SHINGLE,
PAPER and CEMENT STOCKS

Produced by

General Asbestos Co., Ltd.

EAST BROUGHTON, QUEBEC

Imported Asbestos Yarns and Cloth

Sole Selling Agents

IMEX CORPORATION

25 Beaver Street

New York City New York

been developed, namely, in connection with steel office equipment which are repositories for valuable documents of all kinds. An illustration of one such piece of equipment appears on page . The Champion Register Company has tested its registers with oxy-acetylene flame, but altho the steel walls burned off, the contents remained intact. The advantage of fire resisting protection for valuable documents without the necessity of placing such documents in a fireproof vault is obvious to all business men and as a re-

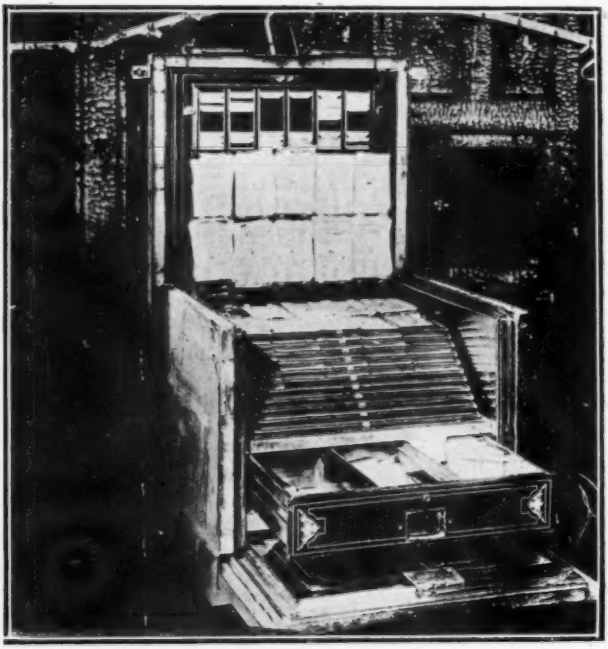

Photo by courtesy of Champion Register Co., Cleveland, O.
This register, installed in the Kennewick Market, Kennewick, Wash., was lined with one layer Four Ply Air Cell Board and one layer ¼ inch Millboard. A fire in 1916 destroyed entire stock in store except the register and its contents

sult a very thriving industry in Asbestos lined fire re-

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For prices, apply to

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Whitehall Building
NEW YORK

sisting office equipment has sprung up. Since Asbestos is practically acid proof and decay proof as well as fireproof, one manufacturer has made use of these qualities in applying Asbestos Paper over corrugated metal used as roofing and sheathing for buildings.

These non-decaying and fire resisting properties of Asbestos Paper very naturally suggested a still wider field of usefulness as the basis of roofing. Within a relatively few years a very big demand has been created for Asbestos roofs of various kinds. Some of this Asbestos roofing is in the form of "ready roofing" in roll form consisting of combinations of Asbestos Paper and Asphalt, or Asbestos Paper, Wool Felt and Asphalt. In other cases the Asbestos roofs are of the "built up" variety and consist of numerous plies of Asbestos Paper saturated with Asphalt, bound together with an Asphalt binder and finished with an Asphalt coating. One of the principle claims made for such roofings is that since the Asbestos Fibre is not subject to decay the roof should have an extremely long life. A very large quantity of Asbestos Paper is now being used in this roofing industry.

Asbestos Paper is made as thin as one one-hundredth of an inch with a weight of about 3-½ pounds per hundred square feet. This is a very fine high grade paper, requiring selected grades of Asbestos Fibre and the best type of manufacturing equipment. Such paper is commonly used in the form of ribbon in widths from one-half inch to 4 inches. This fine ribbon is chiefly used in the electrical trades because Asbestos is an electrical insulator and has a wonderful advantage of being fireproof as well; consequently, fills a big need in armature and similar insulation. Asbestos Paper tubes represent another use for Asbestos Paper in the electrical industry. Then there are a myriad uses for Asbestos Paper in our regular domestic life. Asbestos Paper baking sheets are used for placing over the top of bread and other oven products to prevent excessive heating from the top, and this same bake oven as mentioned before is practically always lined with Asbestos of some kind. The highly polished dining room table is protected from disfiguration by hot dishes by means of a table mat made of Asbestos Paper, which table mat can either be in the form of a mat completely covering the table or

small mats for placing under individual dishes. All are familiar with the Asbestos stove mat to be placed over the gas flame to prevent excessive heating of a cooking utensil in any one spot but instead to evenly distribute the heat over the entire bottom of it. The electric percolator, the electric toaster, the electric grill and all similar electric heating devices are usually lined with Asbestos Paper pads to conserve the heat and prevent its escape in a direction where it might do harm. The electric iron is similarly insulated. The muffler of your automobile is probably lined with a sheet of Asbestos Paper. When meal time arrived the hungry doughboy was highly appreciative of his food but probably did not realize that the rolling kitchen which prepared it was in most cases lined with an Asbestos Paper product. The steel helmet he wore in battle had an Asbestos Paper lining because of the peculiar property of Asbestos to deflect or absorb some type of heat ray which scientific men seem to think is the cause of sunstroke. The cartridge case had an Asbestos Paper lining and millions of little Asbestos Paper discs within the cartridges themselves played their part in the perfection of American ammunition.

These are but a few of the uses of Asbestos Paper which might be mentioned but they indicate the wide variety of uses to which Asbestos Paper and Asbestos Paper products can be put. The combination of fire-resistance, acid-resistance and decay-resistance is a trio that is hard to beat and unquestionably the Asbestos Paper industry will constantly play a more and more important part in our industries and daily life.

FIBRE
LESS THAN CARLOADS
Prompt Shipments

PENNSYLVANIA ASBESTOS CO.
NORTH WALES, PA.

Bell Asbestos Mines

THETFORD MINES
Quebec, Canada

MINES OFFICE at
Thetford Mines, P. Q., Canada
and
SALES OFFICE at
Ambler, Penna., U. S. A.

Miners and Shippers of

Asbestos

CRUDE AND FIBRE

OWNERS
The Keasbey & Mattison Company
Ambler, Penna.
U. S. A.

Market Conditions

Mining:

Reports from Canada are about as expected at this season of the year. Snow, cold, rain and all the troubles of a Northern winter, regularly visit Thetford Mines with late November and seldom depart before late April. This year the snowfall has been unusually heavy, in fact heavier than it has been for many years. Nearly all Asbestos being taken from open pits or quarries, it naturally follows that production falls off in winter.

Warehouse stocks are reported low and we have no knowledge of lessened prices for raw asbestos.

We shall visit the mines, personally, in January and will review the entire situation at that time.

In the Rhodesian, African and Arizona fields reports have it that considerable promotion is going forward. There are several, perhaps many, sound producing companies and individuals in these fields, but, unfortunately, stock sellers have found the asbestos atmosphere profitable and, mixed with the honest prospectors and miners, is a leaven of promoters whose whole interest is to get money rightfully belonging to somebody else.

Our advice to all prospective buyers of asbestos mining stocks and properties is to examine carefully, even microscopically, into the past history of all individuals offering such property or stock. A bit of inquiry is worth years of remorse.

Paper, Millboard and Air Cell Covering:

Several large and important orders for paper have been placed within the last few days. Prices obtained are indicative of a firm market and bear out the statements heretofore made in these pages.

It is authoritatively stated that we are short about one million homes in the United States. With immigration increasing very rapidly and other factors making for increased building activity we expect to see no serious lull in the demand for paper and paper products.

The vast amount of educational work done by the Bureau of Mines and by hundreds of manufacturers in the interest of coal saving, has taught millions of our citizens to seriously reflect upon the subject and there is no doubt

White Chrysotile.

The Victoria District Industries, Ltd.

Fort Victoria,
Southern Rhodesia.

Are Mine Owners, operators, and dealers.

Now open to consider "forward contracts."

Blue Crocidolite
White Tremolite
Brown Amosite

African Base Metals Export Co., Ltd.

Kearsney Buildings,
Durban, Natal.

Are Mine Owners, operators and dealers.
Ready to consider prompt and forward contracts for several grades.

CABLES:—Both companies use Broomhall's Imperial Combination, and Bentley's Codes, and will respond promptly to cabled enquiries.

that many thousands of home heating plants have been insulated as a direct result.

It would be a splendid and a profitable investment for paper and air cell manufacturers to collectively obtain disinterested authority for claims made in behalf of the efficiency of air-cell and then collectively publish the facts. The time is propitious and much of the ground has been well cultivated for the sowing.

As it stands now, practically no data of a dependable nature, is available and manufacturers' claims are so variable that the knowing buyer is naturally skeptical of all representations.

Why not do it right?

Textiles:

A considerable increase in numbers of inquiries for prices and deliveries is reported by several mills.

Following the cataclysm in the automotive industries, textile manufacturers were flooded with "suspend shipment" orders. Almost without exception buyers were told to take their goods or to cancel, the manufacturers realizing that cancellations would be advantageous because prices for raw asbestos have not declined and will not decline. In other words orders now cancelled will be replaced at even higher prices when the wheel again starts turning.

There are now unmistakable signs that the turn has commenced and those buyers who stuck to their contracts will, in our opinion, be everlastingly grateful.

85% *Magnesia*:

In sympathy wiith the general business situation, the magnesia industry is marking time. A fair volume of business is being booked, and shipments, while not normal, are well above what might have been expected.

Several very important discoveries have given magnesia additional prestige as an insulation for high pressure steam use and it would not be surprising if this material would force all imposters to leave the high pressure field once the real facts have been related to the engineering profession.

FRANKLIN FUEL SAVING PRODUCTS

One Ton of 85% Magnesia
Will Save
One Ton of Coal Per Day

This statement is startling but
Nevertheless True

Furthermore, once put on the saving begins at once and continues as long as the pipes last, no matter if the superintendent is on vacation and the engineer asleep.

It can't be put "out of order" by the poorest or clumsiest workmen. When 20 years old it is as good as on the first day.

The only way to make it stop working and saving for you is to shut the plant down.

With our cat. F. C. 7. 19 you can figure out the exact saving for yourself.

The Franklin Mfg. Company
FRANKLIN, PA.

THE ORIGINATORS *and*
LARGEST MANUFACTURERS *of*

85% Magnesia
Sectional Coverings

Asbestos
Textiles, Paper
Millboards, etc.

"IF IT'S MADE OF ASBESTOS
WE'VE GOT IT"

Keasbey & Mattison Company
AMBLER, PENNA.

A Reminiscent Letter

Editor of ASBESTOS,
721 Bulletin Bldg.,
Philadelphia, Pa.

Dear Mr. Editor:

As promised by the writer, he will talk about 85% Magnesia and its history, and this will carry him back to December 24, 1883,—the night before Christmas. Snow plumes in the air; Lake Michigan voicing her unrest by sonorous beating of angry waves upon the shore; a Christmas tree trimming awaiting completion, and its interruption by the ringing of the door bell. The writer answered the summons and the caller said:

"Someone is on the telephone at the carbarn, asking for you, and I am to get a quarter for telling you."

The City was Milwaukee, Wisconsin, the carbarn was several blocks away and the night was cold, but the mystery attached to a telephone call from an unknown is irrestible, isn't it? The writer paid the quarter and walked off with his guide.

"Hello! Hello! Mac, is that you? Well, you told me to keep my eyes and ears open and let you know when Magnesia came to Chicago. Well, it's here. A chap named Hanmore got to the Palmer House today with it. He says he wishes to go to St. Paul tomorrow night. Will you come down tomorrow and talk to him? He says he discovered it and has a patent on it."

The writer said: "Tomorrow will be Christmas—must play with the children most of the day, but will go down late in the afternoon," and he did.

So that the reader may at once pick up the thread of this story, the writer, in October 1883, was executing a covering contract at the Jackson State prison, Michigan, and employing some convict labor. One of the convicts said to him:

"Say Mister, I am a plasterer by trade. I am from Philadelphia and came to this Burg and got pinched. There is a fellow in Philadelphia covering boilers with Magnesia. Did you ever hear of it?"

"What sort of Magnesia?" the writer asked him, and he replied—"Drug Store Magnesia."

A day or so later when in Chicago, the writer repeated this "Magnesia" conversation to a friend of his and said: "Mart, keep your eyes and ears open and if you hear of Magnesia reaching Chicago, let me know quick" and hence the telephone call.

One of the writer's earliest impressions of Mr. Hanmore (who was about 5 feet 5 inches tall and weighed perhaps 135 pounds) is as he stood tapping the breast of a Palmer House doorman, at least 6 feet 4 inches tall and weighing over 200 pounds, resplendent in uniform, and saying to him: "You big stiff, you better get a policeman to guard you or someone will steal that star off your breast and you won't know it." This evidence, on Mr. Hanmore's part, of a nervous temperament, resulted from the loss of the writer's overcoat, Hanmore having entrusted it to the doorman, who reported it as "lost" when the writer was ready to go out in the cold, cold night.

The incident occurred at the close of a long and interesting first interview with Mr. Hanmore—during which, as now recalled, the following facts developed:

Hiram N. Hanmore, then residing in Philadelphia, had discovered by accident, and not research, that Magnesia alba, the Magnesia of the pharmacist, possessed inherently the ability to prevent the escape of heat from any surface it covered. Mr. Hanmore consulted a Patent Attorney, and in due season was officially granted by the U. S. Patent Office, sole and exclusive right for 17 years to manufacture an insulation, the "major non-heat conducting element of which should be Carbonate of Magnesia."

The writer is well satisfied that up to the time Mr. Hanmore came to Chicago, that Christmas in 1883, neither he nor any other had conception or vision that even remotely reflected the height or breadth of the economic value of the discovery. Neither, at that time, was thought given to this wonderful fact, viz:

"Magnesia's property of non-heat conduction is not the result of man's invention, methods or whims. Magnesia held tightly locked within its crystal bosom, this nature-given power of non-heat conduction on the day of its birth and it will only relinquish it when things temporal pass away. This property is not a human invention, but is inherent in Carbonate of Magnesia, and is no more subject to

the whims of manufacturers than is the revolution of the earth around the sun. Competition cannot change this scientific fact, and Magnesia will be the same powerful element in the conservation of heat and power, a thousand years from now, as it has been since its discovery more than 37 years ago," but—

"To get back to our mutton," when Mr. Hanmore talked with the writer in Chicago, he knew little as to the conversion of Magnesia Carbonate into sections and blocks for the covering of steam pipes and boilers and other heated surfaces. That development followed later and through the mechanical efforts of others.

It was necessary to design special experimental machinery, to secure new and intricate patterns, to find a foundry and machinists able and willing to grasp the difficulties of controlling and pressing into shape a product, the levity of which is most remarkable. Carbonate of Magnesia, if placed in a block, measuring 12 inches wide, 12 inches thick and 12 inches long (1 cu. ft.) would weigh but 192 ounces. Can you visualize this extraordinary fact?

Ability, patience and perseverance finally accomplished results that for many months seemed impossible, success finally crowned the efforts made, and 85% Magnesia Pipe and Boiler Covering was produced in block, sectional and powdered forms, and offered to steam users at a time when the necessity for steam pipe and boiler insulation was but little understood. An educational campaign then commenced and has been carried forward to the present day with phenomenal results, because it has for its basic foundation a phenomenal product.

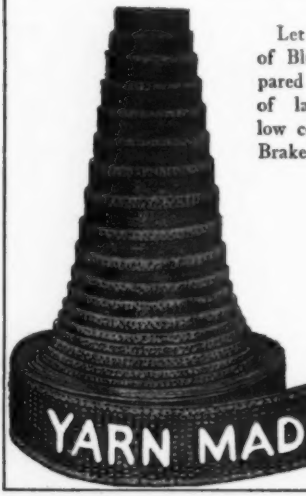
The power plant of the Franklin Sugar Refineries in Philadelphia, the writer thinks has the high honor of receiving the first application of 85% Magnesia Pipe and Boiler Covering, and this work was done by Mr. Hanmore himself. He said to the writer:

> "I called on the Franklin Sugar Refineries Chief Engineer, and explained to him concerning Magnesia's non-heat conducting qualities. He asked where he could see some work that had been done, and I had to tell him that there had been none done as yet.
>
> Possibly my earnestness more than any facts I had to submit, persuaded this Engineer to give me the opportunity to cover some of the boilers in service at the

BRAKE LINING YARN
Blue Asbestos Crude
(Fiberized)

WHEN Foreign Brake Lining Yarn can be imported into the United States and sold for less money than American made Yarn, it is a reflection upon the American Spinning.

By using Blue Asbestos, no Foreign Manufacturer can compete either in Quality or Price.



Let us send you samples of Blue Asbestos as prepared by us, insuring you of large production and low cost in manufacturing Brake Lining Yarn.

85% MAGNESIA
Blue Asbestos Crude

(Fiberized)

BLUE ASBESTOS is the logical material to use for 85% Magnesia

Because

1. **Blue Asbestos has greater tensile strength than White Asbestos.**
2. **Blue Asbestos costs no more than any White Asbestos.**

We prepare a grade of Blue Asbestos especially for 85% Magnesia.

ASBESTOS LIMITED

8 West 40th St. New York City, N. Y.

Associated with

Cape Asbestos Co., Ltd. London, England
Blue Asbestos Mines, Griqualand, South Africa

BLUE ASBESTOS

Sugar Refineries Plant, and I, much elated and very confident, commenced work.

The boilers were hot and the Magnesia would not stick on the surface very well, and I had a deuce of a time in getting the job finished, but learned a lot about handling Magnesia for that sort of work before I was through.

I purchased Magnesia from a manufacturing chemist, and second hand rope from a ship chandler on Water Street, chopped the rope in pieces about one inch long, untwisted the pieces to make it fibrous, and then mixed this rope fibre with the Carbonate of Magnesia in the same manner as hair is mixed with plaster, (and for the same purpose, to make a bond) and then mixed the mass with water until it was the consistency of mortar; applying this mixture to the heated surface with a trowel (allowing the first coat to harden before attempting to place on the second coat) to the thickness of one inch.

The job when completed was not a sightly one, but it certainly did hold the heat in the boilers, while the Chief Engineer and his assistants at the Plant talked about Magnesia performing "miracles."

Magnesia won its Croix de Guerre right there, and it has been winning Blue Ribbons against the field ever since.

The steady progress of Magnesia since that day, in manufacture, distribution and application, it will give the writer pleasure to sketchily follow in later editions of ASBESTOS.

Yours respectfully,
W. A. MACAN,
Vice President Ehret Magnesia Manufacturing Co.

Paul Hammerich

Inspector of Asbestos, Crude and Fibre. Reports on Asbestos Mines and Mills.

THETFORD MINES - QUEBEC, CANADA

ASBESTOS TEXTILE CO.

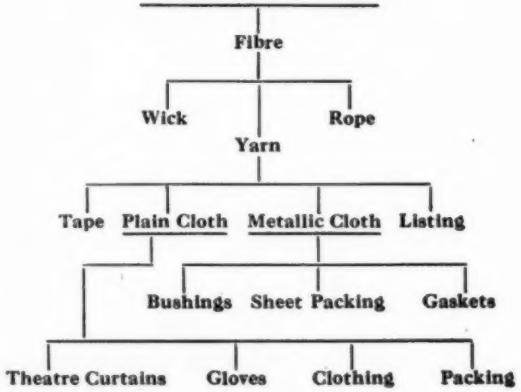
INCORPORATED

MILLS
REYNOLDSVILLE
PENNA.

GENERAL OFFICES
WOOLWORTH BUILDING
NEW YORK

WE MANUFACTURE

ASBESTOS



"Quality and Service"

ASBESTOS TEXTILE CO.

INCORPORATED

MILLS
REYNOLDSVILLE
PENNA.

GENERAL OFFICES
WOOLWORTH BUILDING
NEW YORK .

AMERICAN
COMP

Manufactu

Asbestos

NORRISTOWN,

Headquarter

YARNS, CLOTH, TAPES, FIBRES, BRAKE L

N ASBESTOS
MPANY

ufacturers of

os Textiles

WN, PA., U. S. A.

adquarters for
BRAKE LININGS AND TEXTILES GENERALLY

ASBESTOS MINES LIMITED

Head Office
JACOBS BUILDING
282 St. Catherine St. West, Montreal, Que.
Canada.

MINING ALL GRADES OF ASBESTOS FIBRE

Mines located at East Broughton, Que.

J. A. JACOBS, *President and Managing-Director*

Robert F. Toope

(*Another Old Timer in the Insulation Field*)

Quite by accident, we have run across the son of the man who invented the first sectional pipe covering, and he has given us a few details of his father's life and work.

If our readers will refer to the January 1920 number of ASBESTOS, they will find on page 23 the statement made by Col. Thomas M. Valleau, to the effect that the first sectional covering was known as "Toupees" and was made of Asbestos Fibre and Silicate of Soda. This is the sectional covering invented by Robert F. Toope, who was at that time, about 1866, located on E. 79th Street, New York City. Later, Mr. Toope sold his patent rights for the United

States to the Johns Company (now incorporated under the name of the Johns-Manville Company) and went to London.

In London he formed the Toopes Asbestos Covering Company, Ltd., located at Stepney Square, E., for the manufacture of Asbestos Covering, and was managing director of the company until 1906, when he died. His Covering was used exclusively by the British Navy up until the

SPINNING FIBRES
OF
Highest Grade

Edward H. Garcin & Co. Inc.
1821 Broadway
NEW YORK

BRANCH
MERCER STREET
Long Acre, W. C. 2
LONDON

discovery of 85% Magnesia. His son, Robert Toope, Jr., now residing in Boston, Mass., was appointed in his place and the Company continued in operation until 1915 when, for lack of men and material, due to the war, the business was closed out.

The photograph accompanying this short sketch was taken during the period Mr. Toope was in business in this country.

Prices Current--December 1920

Average market prices paid by consumers for average quantity, quality and freight haul from producer, were about as follows:

Asbestos Air Cell Covering, 4 Ply	35% to 40% off	
" Air Cell Paper in rolls	$10.00 to $12.00	
" Cement	2.50 to 3.00	cwt.
" Cloths, 10s Commercial	1.50 to 2.00	lb.
" Listings and Tapes	1.75 to 10.00	lb.
" Millboard	10.00 to 18.00	cwt.
" Packing, Steam, High Pressure	1.25 to 2.00	lb.
" Packing Sheet	1.00 to 1.50	lb.
" Wick and Rope	.65 to 1.00	lb.
" Paper, Commercial	10.00 to 18.00	cwt.
" Paper and Millboard, Special	17.00 to 35.00	cwt.
" Yarns, 10s Commercial	1.35 to 1.90	lb.
" Yarn and Cloth, Special	2.00 to 6.00	lb.
Magnesia Carbonate, Powdered	.15 to .20	lb.
85% Magnesia Pipe and Boiler Covering ..	10% to 20% off	

POWMINCO ASBESTOS
(Amphibole)
For filtering and other problems
Samples submitted
Powhatan Mining Company
WOODLAWN, BALTIMORE, MD.

YOUR attention is called to the quality of the crates and cases used in the shipment of our "85% Magnesia." They are made of a heavy No. 1 spruce box shook. These containers are more expensive, but their use insures delivery without breakage. Our compensation for this additional outlay is satisfied customers.

NATIONAL MAGNESIA MANUFACTURING COMPANY

Manufacturers of

"85% Magnesia" Pipe and Boiler Coverings
Locomotive Lagging

544 Market St., San Francisco, California, U. S. A.

Cable Address, "Magnesia, San Francisco"

Contractors and Distributors Page

PROPOSAL FORM USED BY ONE PIPE COVERING CONTRACTOR

ESTIMATE NO. 0000
OPERATION Blank Candy Factory
LOCATION 17th St., Phila.
ARCHITECT Blank & Blank
CONS. ENGR. " "

Mr. John Doe, Steamfitter,
Philadelphia.

Gentlemen:

We quote for furnishing and erecting Non-Conducting Coverings, all as shown on the plans and in the manner specified on

ALL FLOW & RETURN MAINS & BRANCHES IN BASEMENT
ALL CONCEALED RISERS & BRANCHES
ONE (1) BOILER
BREECHING

a net lump sum of - - $0000.00

NOTE: Covering included for Flow & Return Lines to and from Expansion Tank
No painting.

Estimate based on current prices of labor and material—subject to revision if not accepted while these prices prevail. Any change in rate of wages during progress of work—shall increase or decrease contract accordingly.
Awaiting your further commands, we are,

Yours very truly,

If other contractors will send their forms in, helpful comparisons and criticisms can be made.

What do you Think?

The problems before thinking Americans are so many and so varied as to be most confusing to nearly all of us. Farmers feel greatly injured at the heavy losses occasioned by the drop in prices of all farm products. A powerful lobby has been organized and is actively at work seeking preferential treatment for the farmer by the Federal Government. With fullest sympathy for the farmer, the fact remains that we have too much class legislation now, and it is to be hoped, but hardly to be expected, that Government will refuse to enact discriminatory laws.

Labor is rejoicing at the fast falling cost of living, and at the same time is planning to fight any and all wage reductions. A powerful lobby operating in the interest of labor is hard at work in Washington, as elsewhere, seeking preferred treatment for organized labor.

Certain reform organizations working in the interest of Puritan morals, abolition of tobacco, and the prevention of kissing are making the lives of our Senators and Representatives anything but easy.

In the meantime business among producers, and manufacturers, is practically at a standstill and business men, having sampled government regulation and government interference, are almost unanimous in expressing wonderment as to the probable outcome of it all.

It is too much to expect that the present Congress will do anything really worth while. In any case, little relief will come from Government, anyhow. Too many of our elected representatives are under heavy obligations to certain groups of electors, and, as usual, not a few of them are committed to carry water on both shoulders.

As we see it, the biggest single job to be done is to cut out the tax on Excess Profits, materially reduce the Surtax rate on Incomes and apply a flat consumption tax on all sales of whatever kind or nature.

The Storekeeper, hack driver, bookkeeper, manufacturer, miner, laborer—all should pay to the Federal Government a flat-percentage tax on the sale of merchandise or labor. Many and good are the arguments against this plan but—no system will so quickly compel a national in-

Hobdell, Way & Co.

LIMITED

LONDON, ENGLAND

RHODESIAN CRUDE ASBESTOS

CAPE BLUE CRUDE ASBESTOS

Address Enquiries to

W. D. CRUMPTON & CO.

Special Representatives

Room 1010 #8-10 Bridge Street

New York City - New York

terest in, scrutiny of and demand for, efficiency in Government expenditure as this one.

When every man, woman, and child must pay *directly* a tax on his or her sales of goods or labor for the maintenance and operation of Federal Government it will be a mighty short time until legislation will be of the people and for the people.

THE OTHER SIDE

In the opinion of labor the heavy taxes now imposed on capital are just, and precisely where they belong.

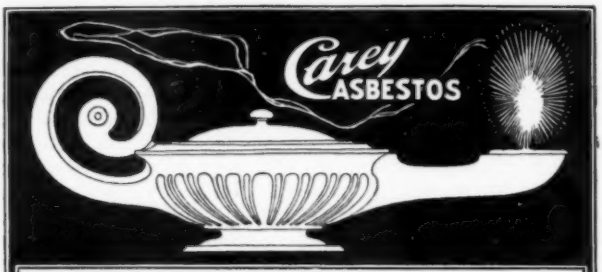
That this idea is quite wrong can be readily seen by any thinking person who honestly tries to comprehend the whole cause and effect.

Earnings of capital, prior to these unsound laws, were put back into industry for development and expansion. Now these earnings, in large part, go to Government in the form of taxes and what does Government do with the money? It is spent for Army, Navy, interest, and for a multitude of Government Employees, some of whom are real producers, but the great majority of whom are about as useful as a corkscrew. Certainly industry does not benefit and hence the wage earner has an ever narrowing opportunity to sell his service.

The tax on profits and large incomes is such that, unless a remedy is found, it will soon be almost impossible to find capital for logical industrial development.

The New York *Times* says editorially, "The unemployment of capital is the unemployment of labor." The statement is the whole truth and it is most unfortunate that the workers of the country prefer to read and believe the inciting headlines of yellow journals rather than the sane, well considered and logical truths printed by the paltry few honest papers of the country.

WANTED, Man familiar with the weaving of Asbestos Textiles. Must be capable of handling High Class Work. Salary $500 per month to right party. Address Box P-50, care "ASBESTOS," 721 Bulletin Bldg., Philadelphia, Pa.



PLUTARCH WAS WISE

He was the Sam Blythe of A. D. 75, —often burned midnight oil writing up the lives of the great and near great.

In his lamp he used an asbestos wick, —wise to what was the cheapest in the long run.

Carey Asbestos wick is today cheapest in the long run for steam packings.

Wisdom also dictates Carey 85% Magnesia and Asbestos Pipe Coverings because they pay for themselves in coal savings.

THE PHILIP CAREY COMPANY

Lockland

Cincinnati, Ohio

Rhodesian Notes

King Asbestos—Proposed Scheme of Reconstruction

Extraordinary meetings of King Asbestos (Rhodesia) are to be held in London on January 3rd and 18th to consider a scheme of reconstruction under which a new company is to be formed with a capital of 175,000 pounds in 350,000 shares of 10s. each. One new fully-paid ordinary share is to be allotted for each share now held. Every shareholder in the existing company has the option of selling to the Charterland and General Exploration and Finance Company, at par, any shares so allotted in exchange, provided those registered in the United Kingdom notify such desire in writing to the Charterland Company within four weeks from the date of allotment, and in the case of other shareholders within three months from the date of allotment.

Shareholders of the existing company will be offered 75,000 ordinary shares of the new company for subscription at par. Any of these shares not applied for will be taken up by the Charterland Company or its nominees at par. The Charterland Company or its nominees will apply for 25,000 further ordinary shares within one month of the date of signing the proposed agreement. The new company, as consideration for guaranteeing the issue of the 75,000 ordinary shares, grants the Charterland Company the following calls at par: (a) For one year from the date of its incorporation of 50,000 shares at par; (b) for two years from the date of its incorporation of 50,000 shares at par.—*Reprinted from India Rubber Journal.*

Some particulars of the development of the asbestos industry in Rhodesia were given at a City meeting this week. The Chicago-Gaika Development Co., Ltd., has acquired a 40 per cent. interest in the Birthday Asbestos Mine, which covers about 1,000 acres. It is situated between two other asbestos mines, and a good deal of development work has been done. The directors have made an agreement with a well-known asbestos company, which, besides being capable marketers of asbestos, are also the owners of a mine adjacent, and the directors have obtained by this agreement the advantage of the whole of the neighboring staff, and their knowledge of working asbestos. The plant

Asbestos Corporation
of Canada, Limited

The Largest Producers of Raw Asbestos in the World

CRUDES
SPINNING FIBRES
SHINGLE STOCKS
PAPER STOCKS

Mines

Kings Mines, Thetford Mines, Quebec
Beaver Mines, " " "
B. C. Mines, Black Lake, "
Fraser Mines, E. Broughton, "

Head Office

260 St. James St., Montreal

General Office

THETFORD MINES
Quebec, Canada

of an asbestos mine requires careful arrangement, and the design of such a plant can only be attained successfully by the result of former experience. Asbestos in Rhodesia is becoming quite an important feature.—*India Rubber Journal, Nov. 27th.*

Raybestos in Canada

Realizing the importance of the Canadian Brake Lining market, the Raybestos Company of Bridgeport, Conn., organized, last spring, the Canadian Raybestos Company, Limited, capital stock of which is $250,000.

This step was taken after consideration of the highway program of Canada, which contemplates the expenditure of $50,000,000 within the next five years, and of the status of the automobile industry in Canada at the present time. There are over 350,000 passenger automobiles and motor trucks in Canada at present, which means one car to every twenty-two persons. The rate in the United States is one car to about every fifteen persons, but since the cost of automobiles and trucks is from fifty to sixty percent higher in Canada than in the United States, the Canadian investment per capita in automobiles and trucks is considerably higher than that of the United States.

The Canadian Raybestos Company purchased the factory of the Lundy Tool and Shovel Company at Peterborough, Ont., remodelled it, installing a sprinkler system, modern heating plant, concrete floor, new plumbing and a new roof. Machinery for the manufacture of brake lining, molded facings and other products of similar nature was shipped from the States. The nearness of the Canadian Asbestos Mines may lead the Company to set up a spinning department in addition to the manufacturing plant.

The officials of the Canadian Raybestos Company, Limited, are President, Sumner Simpson; Vice Pres., Howard C. Simpson; Secy. & Treas., Robert Abbott; Directors, the above, L. V. Simpson and Morton F. Judd. Mr. Abbott is manager of the Canadian factory. All the officers are connected with the Bridgeport organization. Canadian sales headquarters are at the factory and Henry Ervin is in charge.

ASBESTOS FIBRE

FOR THE MANUFACTURE OF

Asbestos Millboard
Asbestos Paper
High Temperature Cements
Pipe Coverings
Asbestos Shingles and Lumber
Insulating Cements
Fibrous Paints
Filtration Packings
Roofing Cements

THE QUEBEC ASBESTOS CORPORATION

Office and Mines

East Broughton, Province of Quebec
Canada

Supplies of Asbestos in the United States 1913-1919

The Report on the Mineral Resources of the United States in 1919, has just been made public. It contains the following statistics on Asbestos:;

Year	Production in U. S.		Imports (unmanufactured) *a*		Exports (unmanufactured)		Apparent consumption. *b*	
	Quantity (short tons).	Value	Quantity (short tons).	Value	Quantity (short tons).	Value	Quantity (short tons).	Value
1913	1,100	$11,000	97,145	$1,928,705	(*c*)	(*c*)	(*c*)	(*c*)
1914	1,247	18,965	71,866	1,407,758	(*c*)	(*c*)	(*c*)	(*c*)
1915	1,731	76,952	93,566	1,981,483	(*c*)	(*c*)	(*c*)	(*c*)
1916	1,479	448,214	116,162	3,303,470	*d*312	*d*$6,133	(*c*)	(*c*)
1917	1,683	506,056	134,108	4,521,172	708	116,580	135,083	$4,910,648
1918	1,002	124,687	137,700	6,337,608	697	51,053	138,005	6,411,219
1919	1,412	325,530	135,270	7,369,685	1,119	157,416	135,563	7,537,799

a Mainly from Canada. *b* Production plus imports minus exports.
c Exports not separately recorded prior to July, 1916.
d Figures cover period July to December, 1916.

World's production of Asbestos, 1913-1918, in metric tons.

Country	1913	1914	1915	1916	1917	1918.	Percentage of total in 1918
Canada *a*	124,239	87,580	100,826	121,053	122,925	128,334	88
South Africa:							
Rhodesia *b*	263	442	1,823	5,586	8,675	7,778	5
Union *c*	873	1,080	1,940	4,224	5,642	3,333	2
Russia *d*	17,494	15,691	*e*9,779	8,192		*e*6,000	4
United States *e*	998	1,131	1,570	1,342	1,527	909	1
Italy *f*	175	171	162	82	85	*e*80	
	144,042	106,095	116,100	140,479	138,854	146,434	100

a Reports of Mineral production of Canada, Canadian Dept. of Mines.
b Report Secretary Mines, Southern Rhodesia for the years 1913-1918.
c Union of South Africa Annual Reports, Secretary Mines and Industries and Mining Engineers for 1918, p. 28.
d Mineral Industry, 1918.
e Estimated; statistics not available.
f Rivista del servizio minerario, 1917, p. 63.

ASBESTOS

Bennett-Martin
Asbestos and
Chrome Mines
LIMITED

Head Office

Thetford Mines, P. Q.
Canada

General Sales Office

220 Broadway, New York

Mines Located at

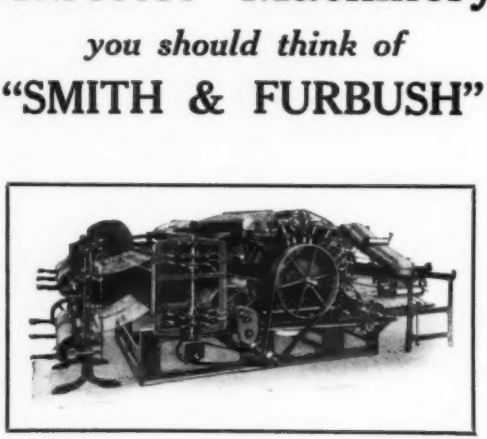
Thetford Mines and Vimy Ridge

When you require

Asbestos Machinery

you should think of

"SMITH & FURBUSH"



We have built practically all the yarn-spinning equipment for Asbestos in this country.

Circulars and further particulars on request.

SMITH & FURBUSH MACHINE CO.

Philadelphia **Penna.**

News of General Interest

It is interesting to note that the Department Store Organizations in the big cities have instituted a "Buy now" policy, evidently satisfied with the adjustment of price levels by the recent liquidation. Foremost among these is the May Department Stores Company whose business amounts to $75,000,000 annually. Gimbel Brothers, Philadelphia, have made a similar announcement.

It is thought that this "Buy now" policy will filter out into other industries with the result that purchasing agents will begin buying for their requirements to the end that business will be stabilized. Liquidation is believed by many to have gone too far.

The population of the U. S. in round numbers as of the last census is 106,650,000. The gross wealth is now $500,000,000,000 or $4700 per capita.

In 1914 the U. S. was indebted to foreign nations $5,000,000,000. Today foreign nations owe us $10,000,000,000. Some Right-About-Face.

Announcement has been made by the Westinghouse Electric & Manufacturing Co. that negotiations are being closed for the purchase of the plant and property of the Independent Lamp & Wire Co., Rochester, Pa. Although this plant was formerly used for the manufacture of glassware, the Westinghouse company plans to ulitize it for the production of micarta materials of all kinds as well as repair parts for electrical machinery. The plant has a total floor space of about 130,000 sq. ft.—Elec. World.

A large increase in percentage of Motor Cars manufactured in 1919 over and above the production of 1918 is reported in authentic statistics of the Motor Companies. Passenger Cars numbering 1,657,652 were produced in 1919, valued at $1,461,785,925 and Commercial Trucks numbering 316,364 valued at $423,326,621. This is by far the greatest production in a single year in the history of motordom.

More than 3,000 immigrants are passing through New York's Ellis Island station daily. For the fiscal year 1920-21 more than 1,000,000 will have passed through the station. More than 10,000,000 are waiting in war-stricken Europe to swarm to this country as soon as transportation can be obtained.

The Proprietary Association, composed of more than 200 manufacturers of proprietary medicines, are planning to drive from the market the manufacturers of medicines of such high alcoholic percentage that they are used as beverages.

News of the Industry

WHY NOT?

A few days ago a large national distributor of asbestos goods, sent in to us a list of thirty-two salesmen employed by it, ordering that "ASBESTOS" be sent these salesmen for a year.

New subscriptions are now being entered at a rate exceeding fifty per month.

Any miner, manufacturer, middleman, jobber or finisher can ill afford to have his salesmen, executives and larger customers unacquainted with this little monthly.

No duplications are permitted in our files, so that if you wish to send in a list of people, you can always depend on being billed only for those names not previously on our subscription lists.

We believe "ASBESTOS" is doing a good work for the industry and it can be more quickly and efficiently extended by bulk subscription than in any other way.

Take pause and send along your lists. The recipients of "ASBESTOS" will appreciate your sending it and its message will, in some way, do good for them and for you.

A NEW AND UNIQUE SERVICE

Roy A. Smith, for many years connected with the Keasbey & Mattison Company, and active in the mining, manufacturing and selling department of that business, has severed his connection and engaged upon a line of work which he believes will be helpful to the Industry and to himself.

Mr. Smith plans to render service to users of Asbestos, either raw or finished materials in the matter of writing specifications and in connection with the inspection of material before and after purchase.

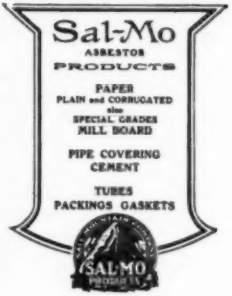
He has already performed services of this kind for several large users, and feels that the field offers considerable promise.

Anyone interested in retaining Mr. Smith's services, may get in touch with him thru the Editor of ASBESTOS.

Congratulations are extended to Mr. George D. Crabbs, President of the Philip Carey Company, on the occasion of his birthday, January 22nd.

United States Packing Manufacturers might profit by consulting page two of the India Rubber Journal of issue December 13th, 1920, in which is set forth exports of engine and boiler packings by Great Britain to various countries for the years 1918 and 1919.

It is especially noteworthy that very creditable shipments were made to South American countries, a market which American Manufacturers should more attentively cultivate.



Our new
ASBESTOS CATALOG
is now on the press

(*Write for your copy today*)

WERE your sales on Asbestos Materials in 1920, what you should expect, considering the field you cover?

If the answer is yes, we can help you retain this volume of business. If it is no, we can help you reach the mark you have set for 1921.

In either case, our method is the same.

We ship dependable goods and render efficient service.

(Inquiries receive prompt attention)

Sall Mountain COMPANY

General Office
305 So. La Salle Street
CHICAGO

NEW YORK CITY
141 W. 20th. St.

Scranton, Pa.

BOSTON, MASS.
268 State St.

ASBESTOS

ASBESTOS regrets to announce the death of C. R. Manville, manager of the Johns-Manville plant at Milwaukee, Wisconsin.

The American Asbestos Company will exhibit at the Philadelphia Automobile Show, held from January 15th to 19th.

The Keasbey & Mattison Company has purchased a farm near Fort Washington, Pa., within a little over a mile of the K. & M. plant, as a safeguard against possible shortage of dolomite or limestone. The farm secured is rich in a good quality of the particular kind of stone required for the manufacture of Magnesia, and the action of the K. & M. Co. is another testimony of the far sighted policy being pursued by several of the manufacturers in the Asbestos and Magnesia fields.

GARCO Asbestos products will be exhibited at the Automobile Show, New York, by the General Asbestos & Rubber Company.

W. A. Macan, Chairman of the Magnesia Association of America, was the recipient of a beautiful gold pin presented by the Associate Members at their last meeting, in recognition of the Chairman's valued service to the Association. The pin is in the shape of a section of 85% Magnesia Pipe Covering, the Covering being in gold with bands of black enamel, with a suitable inscription engraved on the back.

Rene Wasterlain, 10 Boulevard Emile Bockstael, Brussels, Belgium, would like to receive prices and samples on various Asbestos materials.

Asbestos Mines Limited, owners of the one time Boston Mine at East Broughton, P. Q., has just increased the capacity of the mill from 400 tons to 800 tons per day. It is said that this is the largest asbestos mill in Canada today. Asbestos Mines Limited is controlled by Jacob A. Jacobs.

"Your Brakes, How to Treat Them," is the title of a valuable little envelope stuffer issued by The Raybestos Company, makers of the popular Raybestos Brand of Brake Lining. The booklet is full of solid information about proper usage and application of linings and is worth reading.

It is reported that the Quebec Asbestos Corporation of East Broughton, P. Q., Canada, has purchased adjoining property of the Asbestos Fibre Mining Company.

The monthly (December) market letter of the Asbestos & Mineral Corporation is still of a decidedly bullish character.

In our November issue we referred to a plant at East Broughton as being the first textile plant in Canada. It appears that the Raybestos Company has been operating a weaving plant at Peterborough, Ont., for some little time, manufacturing

"No Excuse" Says the Scientific American

Every now and then somebody who doesn't realize that he is writing an advertisement records a simple fact that is a stronger advertisement than anything we could prepare.

> The **Scientific American,** in a recent issue, says: "There is no excuse for uninsulated steam pipes at the present time. . . . .An insulation to be of maximum value must have more than the property of preventing heat loss. It must also have physical durability, for a short-life material means early replacement, so that if insulation values are equal, the most durable insulation is the most economical."

85% Magnesia Pipe and Boiler Covering meets this full bill of requirements. It gives maximum insulation against heat loss, has its efficiency actually increased by excessive heat, isn't harmed by water, is easily placed or replaced, and has the "physical durability" that the S. A. emphasizes.

Some who are in a position to make a fair estimate say that something like fifty per cent of boilers, pipes, tanks, etc. are today under-insulated or uninsulated.

What a saving there would be in present-day costs if those in control would call for the pertinent facts and figures on heat-conservation that this Association offers, free of obligation.

MAGNESIA ASSOCIATION *of* AMERICA

721 Bulletin Bldg., Philadelphia, Penna.

EXECUTIVE COMMITTEE, Wm. A. Macan, *Chairman*

George D. Crabbs	**The Philip Carey Co.**	**Cincinnati, Ohio**
Alvin M. Ehret	**Ehret Magnesia Mfg. Co.**	**Valley Forge, Pa.**
J. R. Swift	**The Franklin Mfg. Co.**	**Franklin, Pa.**
R.V. Mattison, Jr.	**Keasbey & Mattison Co.**	**Ambler, Pa.**

the well known Raybestos Brake Lining therein. This plant is operated by The Canadian Raybestos Company, Limited. A further description of it is given on page

Being eager to have the pages of Asbestos contain only accurate information we are glad to correct the first statement which appears to have been erroneous.

H. W. Edmondson has resigned as Manager of the Asbestos Mines, Limited, East Broughton, Quebec, and is now at 465 W. 159th St., New York City.

Asbestos Mines Limited has awarded a contract for an aerial tramway to the American Steel & Wire Company. The tramway will have a capacity of delivering 1000 tons of rock a day from the pit to the mill and, due to the fact that the tramway load is all down hill, will require not over five horse power to operate the entire tramway. The tramway will be so constructed that while it will carry the rock to the mill, it will also carry the tailings away from the mill and thus obviate the cost of carrying the tailings on the dump.

The sale of a promising asbestos property in Pleasant valley to an eastern syndicate, was recently announced by Charles Johnson, a former resident of the Miami district, and one of the owners of the property. Mining engineers, in an examination for the syndicate, reported the prospect as highly satisfactory, and it is said that a substantial sum has been placed as an option upon the group of claims involved.—Arizona Mining Journal.

It is estimated that an annual production of 2500 tons of asbestos can be obtained in North China.—Clipped.

The directors of Consolidated Asbestos, Ltd., have declared the regular quarterly dividend of 1¼%, payable Dec. 31 to holders of record on that date.

Importation of large quantities of Asbestos into Japan since January 1920 from Canada and South Africa resulted in a surplus which holders have decided to re-export to the United States, in view of the higher price quoted in that market. The first shipment of note was made about November 1st and consisted of 100 tons.—N. Y. Times.

A party under the direction of Mr. Leopold, engineer of the U. S. Bureau of Mines, recently filmed the asbestos mines in the Miami (Ariz.) district.—Arizona Mining Journal.

The Sall Mountain Company are distributing daily date calendars of attractive character.

A unique advertising novelty has been put out by ASBESTOS LIMITED. It consists of a gold Eversharp pencil, on which is

Consolidated Asbestos Limited

MINES AT

THETFORD MINES, QUEBEC, CANADA
ROBERTSONVILLE, QUEBEC, CANADA

Miners of all Grades *OF* ASBESTOS CRUDE and FIBRE

EXECUTIVE OFFICES

Dominion Express Building
145 St. James St.
Montreal, Canada

enameled in blue, the words "Blue Asbestos." In lieu of jeweler's cotton, blue carded asbestos was used, and the box was tied with blue yarn.

The Stokes Asbestos Company, with an authorized capital of $1,000,000, has been incorporated in Trenton, N. J., for the manufacture of asbestos cloth for brake lining. The articles of incorporation were signed by William B. Stokes, Joseph Oliver Stokes and Robert J. Stokes.

It is reported that the Mount Joy Magnesia Company has applied for a receivership. The cause alleged is lack of business and it is presumed that the application is entirely friendly. Assets are stated as $240,000, with liabilities of $90,000.

Resignation of Dr. F. G. Cottrell, Director of the U. S. Bureau of Mines is announced. H. Foster Bain of California, is recommended as his successor.

John P. DuBois has been appointed General Sales Manager of the Ehret Magnesia Mfg. Company, Valley Forge, Pa. This announcement will doubtless be of considerable interest to Ehret's agents and representatives as it is expected that Mr. DuBois will promptly institute sales service of great value to the Company at large.

The Asbestos & Mineral Corporation find it impossible to move to their new quarters—Gotham Bank Building, 1819 Broadway—until February 1st, due to delay in building operations. Their address therefore should not be changed until February 1st.

Announcement has been received of the death of Ernst Gessner, Berlin, Germany, on December 3rd, 1920. Mr. Gessner was senior member of the firm which bears his name and was the largest manufacturer of Textile Machinery in Germany and perhaps, in the world.

George V. Hurdle has resigned from the Presidency of the Valley Forge Magnesia Company, being succeeded by George Flint, of Philadelphia. Mr. Flint is connected with many large enterprises in Philadelphia, such as the Flint Steamship Company, the Hurley Motor Car Company, several banks, real estate operations, etc.

The Asbestos Crude & Fibre Mining Corporation, Limited, of Thetford Mines, P. Q., has been incorporated in Canada with a capital of $600,000,000.

Congratulations and best wishes to the Editor of ASBESTOS whose birthday occurs on January 29th.

Calendar Note Pads are again being distributed by the Nor-

ELWOOD J. WILSON

Mining Engineer

76 CORTLANDT STREET
New York City

Asbestos Crude and Fibre for Sale

Thetford Crudes, Rhodesian Crudes
Rhodesian Carded Crudes
for immediate shipment, ex warehouse N. Y.

CHRYSOTILE ASBESTOS ONLY

Will Examine and Report on Asbestos Mines and Prospects Anywhere

Correspondence desired with Owners of Asbestos Mines with a view of Purchase

ristown Mag. & Asbestos Company. These are much appreciated by recipients as they are very convenient.

There seems to be no limit to which new uses of Asbestos apply. The latest one brought to our attention is that Dr. Hogyes Asbestos Sock Company, Ltd., London, are displaying boot socks made from Asbestos fibre, besides a wide range of Plimsolls and tennis shoes, etc. Just another evidence that the Asbestos Industry is a highly essential one.

We have been interested in reading the article appearing in the October 27th issue of Fire and Water Engineering under the title "Fire Resistant Asbestos Building Materials," by Maurice J. Hoover.

Our old young friend, Henry F. Grier, of Farragut Naval History fame, is rather adroitly styling himself a steam pipe tailor. His explanation is that a regular tailor clothes men, whereas he clothes steam pipes.

Reductions in the price of asphalt shingles and prepared roofings have been announced by two large roofing manufacturers. The president of one concern is quoted as having said "Our new quotations are below present costs, and also lower than anticipated costs for 1921. The one purpose is to stimulate business."

We acknowledge to Bell's United Asbestos Co., Limited, Southwark St., London, S. E., our obligation for a complete set of catalogs and printed matter describing the products of that Company. The line of asbestos staples and specialties, including yarn, cloth, brake lining, packing, shingles, sheets, etc., is very large and complete and we have profited by reading some of the data so well presented in this literature.

Our readers may have access to these catalogs upon inquiry at this office.

The article appearing on page 47 of December ASBESTOS, entitled "Half Truth," has brought forth a variety of opinion. One Marine Engineer, holding Chief Engineer's papers, states that in these days a Chief Engineer of an ocean going vessel is not only a mechanic, but a highly trained technical man, and, as such, should know the best kind of packings for his particular engines. The purchasing agent, on the other hand cannot be expected to make these fine distinctions.

It is held further that Marine Engineers are agreed that a packing which will give good service on one engine, will not give equally good service on another engine.

It is a pleasure for the publishers of ASBESTOS to print these various opinions on any subject which it undertakes to report, always with the understanding that this publication assumes no responsibility for such published opinions.

ASBESTOS

QUALITY USACO PACKINGS

United States Asbestos Company

General Office: Lancaster, Pa.

Mills at Manheim, Pa.

We manufacture asbestos yarns and fabrics, also packings and friction facings and sell them exclusively to rubber goods manufacturers, packing manufacturers and brake lining manufacturers and to distributors of asbestos material on a quantity basis

Branches

New York **Boston**

Asbestos Paper
Asbestos Roll Board
Asbestos Mill Board
Asbestos Packings
Asbestos Pipe Coverings
Asbestos Blocks
Asbestos Cements
Asbestos Roofings
Asbestos built-up-Roofing Felts
Asphalt Roofings
Asphalt Felts
Slate Top Roofings
Slate Top Shingles
Coal Tar Felts
Coal Tar Products

H. F. WATSON CO.

Main Office and Factories

79 MILK ST. BOSTON — **Erie, Pa.** — 319 N. WELLS ST. CHICAGO

EHRET MAGNESIA MFG. COMPANY

VALLEY FORGE, PA.

December 27, 1920.

Editor of ASBESTOS,
721 Bulletin Bldg.,
Philadelphia, Penna.

Dear Mr. Editor:

In this season of bright hopes, boars heads and plum pudding, it requires a subject as economically important as the covering of steam pipes and boilers with 85 per cent Magnesia to persuade us to write you at all this month.

The writer recalls that he was introduced to 85 per cent Magnesia by its discoverer on Christmas day many years ago, and we have wintered and summered together, without an hour's vacation, ever since.

I would like you to note this unmatchable fact:—In all these years 85 per cent Magnesia has never failed in service. Its history is an open book.

The prominent engineers and large steam users of today, knew 85 per cent Magnesia in their student and apprenticeship days and marveled even then at its wizard-like ability to prevent the escape of heat from any surface it covered.

The things we "learn at school," technical and practical things, are the foundation stones of our life work in later years. The men of today, who are planning and executing in the realm of heat and power with signal success, know their subject in detail.

In drawing heat or power specifications, they write under "Insulation"—"85 per cent Magnesia Covering," and the operating engineer sees to it that he **gets** 85 per cent Magnesia Covering.

This 85 per cent Magnesia with a history behind it that reads—"Permanent Economy," "Investment Always," "Never an Expense," we are making at Valley Forge, Pa.

Yours respectfully,
EHRET MAGNESIA MFG. CO.,
W. A. MACAN, *Vice President.*

FOOL TESTS

BY RUFUS T. STROHM

"Just note this chunk of covering," the oily salesman said.
"It hasn't shown a single crack, nor yet begun to shred.
And yet a pair of terriers, for full two weeks or more,
Have yanked and chewed and rolled and bounced that piece around the floor.
As man to man, I ask you, now, to tell me, plain and flat,
If you've seen other coverings superior to that?"

Said I, "The record that you quote is surely hard to beat;
But what about its value when it comes to saving heat?"

"Just look at this," he hastened on; "this very section lay
Uncovered in my garden plot from August round to May,
Subjected to the autumn rains and winter's icy blast;
But when the snow and ice were gone, and summer came at last,
I brought it to my doorway and I used it as a mat.
No other covering that's made will wear as well as that!"

Said I, "If I were buying mats, I reckon it would do;
But on a steam pipe will it keep the heat from leaking through?"

A look of pity crossed his face; compassion filled his eyes.
"I fear you fail to get my point," he said in pained surprise.
,'Now, here's a square I nailed across a rat-hole yawning wide,
And when the rat gnawed through, the fibers choked him and he died.
This covering spells painful death to every roving rat,
And not another brand can show a record such as that."

Said I, "It sent to spirit realms that pesky rodent's soul;
But tell me, what's its record in the way of saving coal?"

"Observe this little strip," he said, politely as before—
But patience reached the breaking point and I could stand no more.
I grabbed him by the breeches and I seized him by the hair
And rushed him to the landing of the long, descending stair,
And then, with wrathful energy, I swung my number nine
And planted it precisely on the tail end of his spine.

When any salesman saunters in, he gets a welcome seat,
But when he talks of coverings, he's got to mention heat!

Robinson Press
Hatboro, Pa.